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(54)METHOD FOR DETECTING CHARGING
COMPLETION OF BATTERY CHARGER AND
ITS EQUIPMENT

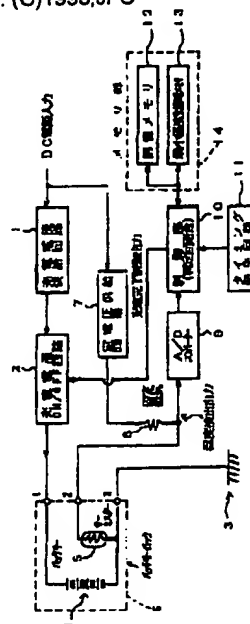
temperature gradient value is larger than the stored
value in the minimum temperature gradient memory 13
and the difference between them exceeds a set point.

(57)Abstract:

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PURPOSE: To eliminate the influence of temperature rise in a battery charger itself and to accurately detect the completion of charging even though the temperature gradient of the battery is small by storing the minimum value within the temperature gradient of the secondary battery being charged and by judging the completion of charging when the difference between the minimum value and present temperature gradient exceeds a predetermined value.

CONSTITUTION: A constant voltage output from a constant voltage output circuit 7 is supplied to a fixed resistor 8 and a thermister 5, and its partial voltage value is written to a control portion 10 as a temperature detection output of a secondary battery 4 through A, C converters. This writing is performed at constant intervals by the timing signal of a timing generating circuit 11. Then, the temperature gradient value is calculated, this value is stored in a front-end memory 12 as a present-time temperature gradient value and sequentially updated, and the minimum value of the temperature gradient value at the present-time point is stored in a minimum temperature gradient memory 13. Here, the completion of charging is judged and charging is completed when the present



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